

REMARKS

The present communication responds to the Office Action of March 26, 2007. In the Office Action claims 30 and 31 were rejected.

In this response, claim 30 is amended. The claim amendment does not add new matter.

Reconsideration is requested in view of the above amendments and these remarks.

Rejection under 35 U.S.C. § 101

Claims 30 and 31 were rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

The § 101 rejection is traversed. However, to advance prosecution, claim 30 is amended to make it more clear that the human body is not being positively recited.

Rejection under 35 U.S.C. § 103

Claims 30 and 31 were rejected under 35 U.S.C. § 103(a) over Korf et al. (U.S. Patent 6,013,029) in view of Patsalos et al. (U.S. Patent 5,607,390), Bergveld et al. (U.S. Patent 6,463,312), and Pfeiffer (U.S. Patent 5,640,954).

The Examiner's § 103 rejection of the claims over Korf in view of Patsalos, Bergveld and Pfeiffer is improper for at least the following reasons.

I. Korf teaches against providing a check valve in the flow path

Providing a check valve in the flow system of Korf is unnecessary and contraindicated, as Korf discloses means for maintaining a constant flow rate of the perfusate using little or no supply energy.

As the Examiner correctly states, Korf in view of Patsalos and Bergveld does not disclose a valve. *Office Action, page 3*. However, the Examiner is incorrect where he states "it would have been obvious to modify Korf et al. to include such a valve [i.e., check valve 90], so as to control the fluid flow and maintain accurate readings." *Id.*

Korf discloses a method for monitoring the concentration of substance(s) in body fluid, which employs a low flow rate, and “[d]ue to these low flow rates, a very constant flow can be maintained for a long period of time with simple means, which need no or very little supply energy. In the preferred embodiment, the means for maintaining the flow of the perfusate are of a non-moving type and consist of a waste reservoir 5 containing a fluid absorbing material . . . A separate energy reservoir for the purpose of driving the flow can thus be dispensed with or be very small and light.” *Korf, col. 5, ll. 37-50.*

The use of a check valve in Korf is unnecessary because perfusate constantly flows from the interface to the detector. *Korf, col. 5, line 36.*

The use of a check valve is contraindicated by Korf, i.e., Korf teaches away, because no power source or a very small power source is contemplated for moving perfusate through the flow path. In Korf’s method of monitoring body fluids that employs low flow rates (e.g. less than 20 µl/hour), by employing moving parts in the flow path such as a check valve from Pfeiffer, additional energy would be required to maintain the check valve in an open position thus allowing the perfusate to flow. It is an object of Korf to do without a power reservoir or have one that is very small and light. Adding movable parts to the flow path in Korf increases the amount of energy required to operate the flow path and vitiates one of its main objectives: eliminating or greatly reducing supply energy. Accordingly, adding a check valve such as the one in Pfeiffer is contraindicated by the teachings of Korf.

II. The sensor adjacent to the valve is not disclosed or suggested in the cited references

Korf in view of Patsalos, Bergveld and Pfeiffer do not disclose or suggest a “sensor is positioned adjacent to the valve”

As amended, claim 30 *inter alia* states: “a valve positioned in the discharge tube adjacent to the joint portion for preventing a reverse flow of the dialysis fluid into the discharge tube; and a sensor for measuring attributes of fluids in the body, wherein the sensor is positioned adjacent to the valve in the joint portion between the discharge tube and the outlet portion.”

As the Examiner correctly states, Korf in view of Patsalos and Bergveld does not disclose a valve. *Office Action*, page 3. In Pfeiffer, check valve 90 of the metabolite monitoring apparatus is positioned on dialysate tube 14, but it is not positioned adjacent to a sensor. In Fig. 1 of Pfeiffer, once the perfusate passes check valve 90, it reaches junction 20, which introduces enzyme solution 38 to the perfusion fluid. The mixture then passes through junction 40 in such a way that “[t]he measuring dialysate flow is let through the flow chamber 16 which is interconnected in the measuring dialysate tube 15 by way of junctions 40, 42, [and] the measuring dialysate flow is led past sensor 26.” *Pfeiffer*, col. 5, ll. 2-6. Accordingly, Pfeiffer does not disclose a valve positioned adjacent to the sensor as claimed. Furthermore, Pfeiffer does not disclose alternative configurations of the metabolite monitoring apparatus in which check valve 90 may be positioned adjacent to the sensor.

III. The Examiner uses impermissible hindsight to piece together the cited references

The remarks presented in the response of December 26, 2006, in relation to the rejection over Korf in view of Patsalos and Bergveld are maintained.

Furthermore, the Examiner again uses impermissible hindsight to join the teachings of Korf, Patsalos, Bergveld and now Pfeiffer.

The Examiner’s rationale for combining Pfeiffer with Korf, i.e., “it would have been obvious to modify Korf et al. to include such a valve, so as to control the fluid flow and maintain accurate readings,” is incorrect. In particular, Korf discloses a method of controlling fluid flow with the use of a very small power supply, or no power supply at all. There is no indication in Korf that adding a check valve, i.e., another fluid control source, would aid maintaining accurate readings. Rather, adding a check valve is contraindicated for the reasons set forth in part II. above.

Further, the Examiner’s statement regarding Korf at page 2 of the Office Action, i.e., “the examiner recognizes that four references are being combined. However, it is the examiner’s position that the changes to Korf are minor in nature and do not change the operating principles of Korf,” if true, which it is not, does not excuse the Examiner’s use of impermissible hindsight.

For at least the preceding reasons, the rejection under § 103 should be reconsidered and withdrawn.

Dependent Claim

Claim 31 depends from independent claim 30, and is patentable over the art of record for at least the reasons set forth above, further in view of its additional recitations.

Conclusion

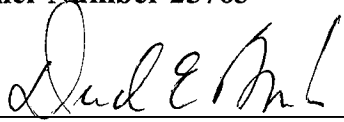
This response is being submitted on or before September 26, 2007, with the required fee of \$1,020.00 for a three-month extension of time, making this a timely response. It is believe that no additional fees are due in connection with this filing. However, the Commissioner is authorized to charge any additional fees, including extension fees or other relief which may be required, or credit any overpayment and notify us of same, to Deposit Account No. 04-1420.

The application now stands in allowable form, and reconsideration and allowance are requested.

Respectfully submitted,

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